

## STATEMENT OF WORK AND SPECIFICATIONS

- 1) The Contractor shall provide on-orbit asset capable of meeting the minimum communications and compatibility requirements with available channels listed below:
  - a) The satellite must provide a payload with the following characteristics:
    - i) Frequencies in the military UHF band as defined in Table 1 below.
    - ii) The satellite footprint shall be consistent with a nadir-pointing spacecraft in geosynchronous (inclined) orbit.
  - b) The channel center frequencies are defined in Table 1 and shall not be part of a larger bandwidth channel that would then be externally subdivided.
  - c) This document provides the minimum parameters required to provide UHF communications to the Department of Defense operators using DoD UHF radios and antennas. A failure of service occurs when the payload does not meet these parameters or when UHF communications are interrupted or halted as a result of spacecraft anomalies, outages or failures and the Government notifies the contractor of such failure (“Confirmed Outage”). Interference from sources external to the spacecraft (atmospheric, environmental, third party, etc) that negatively impact UHF communications shall not be considered failures.

Table 1: Performance Parameters

Parameter	Value	Notes
Orbital position, mean longitude	Operational in an approved ITU orbital slot	Mean longitude is defined as the average over one sidereal day of the satellite’s time varying longitude
Channel quantity (design)	Relay channels: Up to 5 channels per satellite	Up to Five Relay (25 kHz) channels for Skynet and Five Relay (25 kHz) channels and One (5 kHz) channel for LEASAT
Available frequency plans	A,B,C,N,O,P,Q,W,X,Y&Z	Frequency plan for 5 kHz and 25 kHz channels may be selected independently
Channel frequencies	Nominal uplink and downlink frequency assignments	
Uplink-downlink translation frequencies	Relay channels: 41.0 MHz nom Narrowband channel: 73.1 MHz nom	
Translation frequency error	+ 0.5 ppm max	
Channel bandwidth, 1dB nominal	Relay channels: 25 kHz Narrowband channels: 5 kHz	Nominal performance is symmetrical about specified center frequency, exclusive of translation frequency tolerances
EIRP at POB	Relay channels: 25.5 dBW min Narrowband Channel: 16.0 dBW min	
G/T at POB	-18.5 DB/K min	

- 2) The Contractor shall prepare and deliver the following reports (in contractor format) according to the following schedule:

<b>CDRL Data Item No.</b>	<b>Title</b>	<b>Delivery Date/Frequency</b>
A001	Monthly Status Report	Monthly, first 10 business days
A002	Annual Review Report	Yearly, date mutually agreeable to by the Government and the Contractor.
A003	Post Outage Report	No later than 10 business days after the confirmed failure.

3) In the event of an anomaly potentially affecting communications service, the Contractor shall provide a notification to the following personnel within two hours of the event:

- a) Strategic Satellite Operations Branch Chief, (703) 607-4498 or (703) 927-7505
- b) Global SATCOM Support Center, (719) 554-4096
- c) Government Points of Contact listed in the contract.

The notification shall include/address the following:

- a) Any outage or outage amounting to a failure
- b) The health of the satellite

4) Security

The nature of this task requires access to information up to SECRET in accordance with the Contract Security Classification Specification, DD Form 254.